

When you can't make a top industry show, but you need
a blow-by-blow summary . . .

When you need to know about all the pertinent new products
that were introduced this week . . .

When the industry leader admits 9-to-24 month backlogs . . .

When interest charges slash earnings despite record sales . . .

CBN...

Helps you make the right
buy and build decisions
to prosper in the boom times ahead.

Find out — at no risk to you.

Dear Decision-Maker:

The right decision: it's tougher than ever to make.

Usually it's made with your head and your gut. Under intense pressure.

And it must be made fast because you're in the most rough-and-tumble, volatile business environment this country has seen in 50 years.

More than ever, the movers and shakers of the mini-micro business -- persons like you, who are creating and revolutionizing the field -- are relying on Computer Business News to sort out the developments vital to their daily decision making. To make the headiest, shrewdest choices they can make. About terminals and modems, interfaces, disk

(Over, please)

drives and systems, software, add/in, add/on memories -- whether to buy them and what to create with them.

Start your subscription to CBN at absolutely no risk to you. If you're not completely satisfied, we'll refund the balance of the subscription price -- no questions asked.

See why presidents, system-designers, basement inventors -- everyone -- turns to CBN for needed purchasing and creating information.

They turn to CBN for hard-nosed, clear, to-the-point, decision-making facts and information on equipment performance, prices, system compatibility, introductions and innovations (about 50 new-product developments a week).

Why CBN? Because we're on the "Watch" ...

CBN provides on-going coverage of the major manufacturers in unique "Watches," alerting you to developments and problems when they break.

Our now-famous DECwatch, for example, explored the trouble DEC has been having on deliveries, keeping readers up-to-date, week-by-week, on their changing delivery status.

When important equipment and software news breaks and marketing strategies create advantages or disadvantages for you, you'll get the facts -- pro and con -- on your desk, the beginning of each week. And when it's really important -- you'll get it in-depth. Like the two-and-a-half issues we devoted to COMDEX -- the most important OEM trade show in the industry.

Special Reports bring you up to the state of the art ...

Frequently, entire fields are analyzed in depth. CBN explored the immediate options in Winchester and floppy disk drives; we analyzed the advantages of "streaming tape drives" that can dump data within minutes. Upcoming Reports will feature Memory Systems, Printers and Visual Display Terminals.

Directories put you in close touch with your suppliers.

Whether you're a computer systems builder or a third-party reseller, you'll use and save these "who's who" guides -- seven in all during 1981: for integrators (black boxes, modifications, interfaces, etc.); mini and micro add/in, add/on units; CBN/NCC (who's at the show, what they're buying, etc.); software applications for resale (it's so big, we needed three weekly issues of the newspaper to publish it all); plus software tools and utilities; and the COMDEX 2nd Annual Deal-Making Directory.

During 1980, CBN covered 3-1/2 times as many products as the leading

industry monthly and 3 times as many products as the leading twice-monthly newspaper.

Workshops spark ideas and highlight trends you can capitalize on!

When the industry leader suddenly posts its first annual earnings decline in history, you know that you've got to be even more alert than ever to the groundswell of activity -- the demands of your market.

CBN's Business Workshops give you the detailed overviews you need to make decisions involving thousands or millions of dollars at a shot.

And in a recent Integrators' Workshop, CBN analyzed the Winchester 14" tape drive and the reticence of many integrators to use it, in light of the rapid advancement of the 8" Winchester drive.

CBN delivers the most coverage on the watershed growth-area of the 80's: Software.

Computer-users are demanding sophisticated, versatile, low-cost "off-the-shelf" software without the need for all the debugging and writing and "Mickey Mouse" they're stuck with now. This quest for specific, packaged performers is creating a new computer frontier.

It promises untold riches for those entrepreneurs and designers who make the right creative decisions today. Like Dan Fylstra of Personal Software whose Visicalc Program enables users to write a program variation in 15 minutes instead of 20 hours. Visicalc has already rolled up \$1,000,000 in sales.

CBN's Software/Services Section reports every week on these kinds of breakthroughs -- the latest plans, modifications, changes -- and their pluses and minuses. Our staff of experts plows beyond the press releases for you to give you the facts you need.

CHECKLISTS -- the handy reference you can clip and act on.

In each of CBN's sections -- Processors/Systems, Memories, Peripherals-I/O, Software/Services, Financial, Industry -- you're given handy CHECKLISTS to clip, containing punchy, nitty-gritty facts about new products, industry changes and trends.

And our Toll-Free Direct Response Line will get you information from advertisers fast.

The Newsweekly for the business of marketing and designing for the booming 80's ...

CBN is all business. Because this business environment will be cruel

(Next page, please)

to those who are not prepared for it.

But for those who anticipate the trends ... who have the savvy and instinct to make the timely decisions on what to buy, what to market, how to position their products in the 80's ... an unprecedented boom beckons!

Every week, CBN gives you that insight ... in a fast-read, easy-to-follow, organized format ... a concise 20 pages or so that's quickly digestible.

You'll also be on top of new trends in the nuts and the bolts of the business, including: computer law, licensing agreements and distributor deals.

If you make "Go" or "No-Go" decisions -- CBN can be a trusted confidant. But, don't take my word for it. Decide for yourself. Program CBN for 52 weekly issues -- at no risk! Sign and return the Program Card to us. (Or call toll-free 1-800-343-6474.*)

We'll enter your one-year subscription to Computer Business News for less than 50¢ a week ... a modest Twenty-Five Dollars a year.

If, at any time you decide to stop the run, you'll get a refund on the unused portion of your subscription.

The need to be informed has never been greater.

CBN provides the new "savvy" you need to purchase and design wisely in this new era of rising costs. It's your first step to selecting the most prudent and effective components, so you can share in the coming boom and avoid the hard times an uninformed decision will cause.

Sincerely,

W. Walter Boyd

President

P.S. Do you get CBN at the tail end of a routing list? Clipped and cribbed? You need your own copy of Computer Business News. Call toll-free now: 1-800-343-6474.* Or, return the enclosed Program Card in the postage-paid envelope. Remember, you can use American Express, VISA or MasterCard, or enclose payment if you prefer.

* In Massachusetts, call collect 617-879-0700.

TRY THE CBN SYSTEM

AT NO RISK TO YOU!

Computer Business News

CBN gives you the facts you need, organized so you can find them fast — at the start of each week. It's the tool top decision-makers rely on to make the big decisions that pay off!

THE WATCHES

On-going coverage of the major suppliers to the industry . . . new equipment, marketing strategies, their solutions and problems.

Product Costs To Be Passed On

By Susan D. Carlson
CBN Staff

The recent wave of price hikes announced by DEC has caused barely a ripple among systems integrators, many of whom had already turned the situation to their own advantage last week by raising prices on inventory to reflect the increases.

DEC watch

Most DEC customers, polled by CBN last week, wondered simply why DEC had taken so long to boost prices, and most said they had already adjusted their own price tags to reflect the seven percent increase in hardware and the five percent hike on systems.

Allen Newman of Newman Computer Exchange speculated that at least in the short run, the price hikes will help systems houses and OEMs to meet money.

Developments in

John Gritzner
CBN Staff
The demand for local data networks, re moving toward introducing chips of such information networks. developments illustrate the trend: currently is talking about producing a "p.5 Ethernet communications net-

has been under dev years, is slated for s year. "We were supposed a bit behind schedule, of engineering in cha Western. "We shoul quarter."

Interface Workshop

with "close to 100" companies in K25 full-protocol chip. Western will sampling, a spokesman for the firm

has plans to develop a full network although the company is taking a se until the young network field ma- ing of an IEEE committee on local drew attendees f semiconductor uments, Inc., a

with all computers, a "shake" adjustment said.

The chip's firmware ing software. It also has, access interface, one ch and one for receipt of d Intel will not discuss network field and dec along those plans were

THE WORKSHOPS

Step-by-step walkthroughs on vital topics for integrators and systems builders, marketers and managers . . . covering the pitfalls and advantages of printers, tapes, disc drives, memories, interfaces . . . includes surveys on what's ahead, how your fellow innovators see the market.

Special Rep Product Dist.

Shopping-Center Climate Env

THE SPECIAL REPORTS

In-depth articles focus on the state of the art of burgeoning equipment, software breakthroughs — to help you decide which trends to follow.

I/O Checklist

☐ Tektronix, Inc. has expanded the memory capacity with Option 20, a buffer o

Software Checklist

☐ Two utility programs for the TRS-80 perform four

Processor Checklist

☐ A workstation provides a functional desk/cabinet unit

Memory Checklist

☐ Three memory boards for S-100 bus-based system: dynamic RAM for Z80A, 8080A and 8085

CHECKLISTS

Capsule information "bytes" you can clip and file and take action on. Great source

TECHfile

tion Products Reach Market

Another drawback to this speaker-independent approach is that words can be recognized only

THE TECHFILE

Stories that zero in on emerging technologies as they become practical components.

THE MAJOR NEWS BREAKS

Our large staff, with contacts across the country, delves into, investigates, gets comments and gives you hard-hitting explanations of what the news means to you. They work as your consumer watchdog reporting

PROCESSORS/SYSTEMS

Processor Checklist

☐ The ICE-88 in-circuit emulation module is intended for use with the Intel Corp. 8088. Combined with the Intel microcomputer development system and 8086/8088 software development package, the ICE-88 provides the

Computer Business News, Page 13

PERIPHERALS-I/O

Printer/Plotter Unveiled



other with the replacement of a ROM language configurator, the spokesman noted. In addition, the printer/plotter adapts to different voltage requirements. Two international models offer paper widths of 210 mm and 297 mm. Users of domestic V-80 models can also print or plot on international paper widths. Re-

Page 14, Computer Business News

SOFTWARE/SERVICES

PEARL Gives Micro

Applications Generator Among First Available

By Deborah de Peyter
CBN Staff

custom program development. "PEARL lets users of CP/M microcomputers program new software automatically, without having programming skills. It is a most

Page 8, Computer Business News

COMMENT/OPINION

On Protective

In case you haven't noticed it, our industry is starting to show the signs of the turmoil, despair and general financial confusion that is racing through the country. Inflation is hitting us everywhere—at home, at work and in every aspect of our lives. It will not stop this year, especially in the computer industry.

DEC pulled no punches when it unleashed price increases over the last two weeks that unabashedly raised all unbundled software 15 per-

wages, the auto cor for their cars, and prices to keep in line. The cycle is a vicious computer industry created by DEC's increases directly affects systems houses get p-

ware.

From our new modern headquarters, in Framingham, Massachusetts our reporters and editors follow every twist and turn in our exploding industry. Our Quadex 200 Series input and editing systems allow us to go right up to deadline to bring you the freshest news of the week gathered from our contacts throughout the industry.

Make the CBN System work for you . . .
FOR only 50¢ a week . . . ONLY \$25 a year

RETURN YOUR PROGRAM CARD TODAY! OR CALL TOLL-FREE 1-800-343-6474 (In Massachusetts, 617-879-0700, COLLECT).

8080/8085 Software

By John Gritzner
CBN Staff

SANTA CLARA, Calif. — Intel Corp. has made its first venture into the modular software development field, offering a group of standardized applications "building blocks" for 8080/8085 microprocessor systems as well as an enhanced version of its 8086/8088 software development package.

The 8080/8085 Fundamental Support Package was developed jointly by Intel and Siemens AG and will be marketed by both firms, Intel said.

The package includes nine libraries for the most frequently used functions on 8080 and 8085 systems, in-

cluding the I/O operations, binary, octal, decimal, point, transcode and numeric functions. The compilation time is standardized, eliminating the "module" and "library" bility. Intel cla

The routines

author of
important it

ing into
company
or distribu-
manufac-
business

should
an agree-
in the

importance. It is hardware or software materials being supplied somehow in-
fringe on patents or copyrights or in any

Law Comment

way make the integrator liable to a third party because of an error made by the manufacturer, the integrator should be able to look to the manufacturer for reimbursement for any damage payments, as well as any necessary legal fees. For pricing, the integrator should ask

use, have occa-
or nonexclusive
with large dist-

developer must
of specific pe-
competing packa-
forts.

Definit
Properly con-

every development and introduction impacts the market . . . when it happens!

Package 'Turbocharges' CP/M Floppy

Boosts Disk's I/O Speed
by Three to Five Times

By Roy J. O'Connor
CBN Staff

SAN JOSE, Calif. — A sixth of a second can be an eternity in computer operation — yet that is how long it takes a floppy disk to make one revolution. But, according to Mike Busch, vice president of Info 2000 Corp., can limit the efficiency of floppy-disk micros.

To respond to the problem, Info 2000 has announced a new package design

to bring a large amount of information into memory and anticipate the next several I/O requirements of the program. The actual number of disk accesses is therefore cut down a great deal.

Busch cited several techniques used to optimize I/O flow. Both the multilevel buffering of data and the use of a "least-recently used" scheme, buffer assignment are said to improve performance. Buffer size and the number of buffers is determined by the user in an effort to construct a system tailored to the particular application.

"The Turbocharge" allows the user to specify much memory allocation for

Page 10, Computer Business News

MEMORIES

Eight-In. Winchester Odds-Off

Panel Cites Advances, But Warns of Shakeout

supplement or replace the floppy-disk drives now used at remote workstations to handle external memory storage. President S. "The theo-

Computer Business News, Page 17

BUSINESS/FINANCE

ff for Corporation

of manufacturing, the computer application for upholstery application software are available to users as they are developed. Hardware and software maintenance is needed by

CBN Stock Index

25, 1980		COMPUTER BUSINESS NEWS		MARCH 25, 1980	
NET	CHG.	STOCK AND MARKET	P/E	PRICE	NET
CHG.				LOW	CHG.
SOFTWARE AND EMP. SERVICES					
18.25	-1.50	Appl Data	A	16 23 121	8.75 8.75 -50
44.00	7.50	Autumn Data	A	64 14 3774	24.75 33.50 +1.3
13.25	-4.00	Bradford Mail	A	26 6 433	10.50 8.75 8.80 -1.3
43.00	4.00				
58.25	-3.00	Comshare Inc	O	00 13 559	19.00 17.75 17.75 -25
				20 NE	890 12.75 13.25 13.25 -4.00



Computer Business News

375 Cochituate Road, Framingham, MA 01701 • (617) 879-0700

READY. START PROGRAM. Please enter my Personal Subscription to COMPUTER BUSINESS NEWS for 1 year (52 weekly issues) at less than 50¢ an issue, \$25 a year. I understand that, at any time during the course of my Run, I may cancel and receive a refund on the unused portion of my subscription. I have indicated form of payment.

T NELSON
PO BOX 3
SCHOOLEYS MOUNT NJ 07870

IMPORTANT: PLEASE FILL-OUT PERSONAL DATA BELOW

PROGRAM CARD

- ☐ CHECK ENCLOSED
- ☐ CHARGE MY SUBSCRIPTION TO:
AMERICAN EXPRESS ☐ VISA ☐ MASTER CARD

CARD NO.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

(MC Only — List 4 digits above your name)

--	--	--	--

Expiration Date _____

SIGNATURE _____

Address shown is:

- ☐ Home ☐ Business

- ☐ Check here if you do not wish to receive promotional mail.

ISSUES 52

RATE
LESS THAN 50¢/ISS.
(\$25 Annually)

TERMS
REFUND ON
UNUSED
PORTION

TOLL-FREE
ACCESS NUMBER
TO ORDER
1-800-343-6474
IN MASS.
617-879-0700
COLLECT

PERSONAL DATA

The information below is requested so our editors may gear editorial coverage to your needs. It is therefore in your best interest to fill it out. Information will be kept strictly confidential.

PLEASE CIRCLE ONE NUMBER IN EACH CATEGORY.

1 PRODUCT/INDUSTRY

10. SYSTEMS INTEGRATORS/SYSTEMS HOUSES

(Including firms that buy systems, sub-systems or system components/peripherals for integration into systems for resale.)

20. SOFTWARE/SERVICE VENDORS

(Including firms that supply systems or applications software, services, installation or maintenance.)

30. MULTI-QUANTITY END USERS

(Including firms that buy system components/peripherals in volume for integration into systems for in-house use.)

40. MANUFACTURERS of COMPUTER SYSTEMS or COMPONENTS

(Including firms that manufacture computers, computer systems or computer systems components/peripherals and industrial process control systems.)

50. MANUFACTURERS of OFFICE,

BUSINESS, PERSONAL and CONSUMER SYSTEMS

(Including firms that manufacture word processing systems, intelligent micro-form retrieval systems, intelligent copiers and computer games.)

60. HARDWARE OEM's

(Including firms that buy system components/peripherals for incorporation into computer controlled capital equipment for resale.)

70. DISTRIBUTORS/DEALERS/RETAILERS

(Including firms that wholesale or retail computer systems, systems components/peripherals, or software and supplies.)

80. CONSULTANTS

(Including consulting organizations that advise clients on design, implementation and purchase of minicomputer and microcomputer based systems.)

Businesses Other Than Listed Above

91. Manufacturing

92. Business Services

93. Finance/Insurance/Real Estate

94. Wholesale/Retail Trade

95. Public Utilities/Transportation

96. Education/Medicine/Law

97. Mining/Construction

98. Printing/Publishing

Other Communication Svcs.

99. Government: Federal/State/Local

Manufacturing/Plant/Purchasing Manager, Manager of Department or Product Line, Field Service Manager.)

30. SOFTWARE DEVELOPMENT

(Software Project Leader, Systems Analyst, Systems/Application Programmer.)

40. ENGINEERING

(Engineer, Scientist, Systems Designer, Project Engineer, Systems/Application Engineer, Technical Staff, Quality Control/Quality Assurance, Design/Development, Field Service/Support Personnel.)

50. MARKETING

(Marketing Manager, Sales Manager, other Sales & Marketing Personnel.)

60. CONSULTANTS

70. RESEARCHERS/EDUCATORS

(Financial/Industry Analyst, Researcher/Planner, Educator, Librarian, Student.)

90. OTHER _____



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 710 FRAMINGHAM, MA 01701

POSTAGE WILL BE PAID BY ADDRESSEE

Computer Business News

The Newsweekly for Integrators & Resellers of OEM Computer Products

375 COCHITUATE ROAD
FRAMINGHAM, MA 01701

